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UNITED STATES DISTRICT COURT
NORTHERN DISTRICT OF CALIFORNIA
(Oakland Division)

LYFT, INC., Plaintiff/Counterclaim Defendant, v. QUARTZ AUTO TECHNOLOGIES LLC, Defendant/Counterclaim Plaintiff.	Case No. 4:21-cv-01871-JST **LYFT, INC.'S REPLY IN SUPPORT OF MOTION FOR JUDGMENT ON THE PLEADINGS OF INVALIDITY UNDER 35 U.S.C. § 101** Judge: Hon. Jon S. Tigar Date: March 17, 2022 Time: 2:00 p.m. Crtrm: 6 – 2nd Floor

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I. INTRODUCTION

In an attempt to avoid ineligibility under § 101, Quartz resorts to challenging the "current state of the law" and argues—without substantiation and primarily through citation to dissenting opinions—that it is "contrary to Supreme Court precedent." Opp. 1. Quartz is wrong, and in arguing for patent eligibility, it asks the Court to ignore uncontroverted precedent on § 101.

Quartz's patent-eligibility arguments are flawed for three fundamental reasons. *First*, Quartz focuses on details from the specification rather than the claims. *Second*, Quartz misunderstands the use of analogies in the § 101 inquiry. *Third*, Quartz improperly injects novelty and obviousness-type analyses into the § 101 inquiry.

The § 101 inquiry is focused on what is actually ***claimed***. First, asking whether the ***claim*** is directed to an abstract idea, and second, whether the ***claim*** recites an inventive concept significantly more than the abstract idea. Without doing so, Quartz argues that Lyft misapprehends the patents—spending pages of its opposition providing "context" for each patent, criticizing Lyft's analogies for not capturing details in the specifications, and restating dependent claims without analysis. Quartz's efforts are misplaced. Its rewording of the patents does nothing to alter the analysis, and in most cases Quartz and Lyft appear to largely agree on what the challenged claims are directed to. As Lyft's Motion demonstrates, the asserted claims are directed to abstract ideas, regardless of unclaimed details discussed in the specification and in light of the admitted state of the art at the time. They also lack, and Quartz has not articulated any, inventive concept sufficient to render them patent eligible. The Court should thus find the claims ineligible under § 101 as a matter of law.

II. QUARTZ MISSTATES AND MISAPPLIES THE LAW

The § 101 inquiry is focused on the ***claims***. First, asking whether a ***claim*** is directed to an abstract idea, and second, whether the ***claim*** recites an inventive concept that is "significantly more" than the abstract idea itself. *Alice Corp. Pty. v. CLS Bank Int'l*, 573 U.S. 208, 217-18 (2014).

Quartz makes three principal legal errors. *First*, it improperly relies on unclaimed aspects from the patent specifications to argue that the claims are eligible. This approach—of emphasizing the specification over the claims—is wrong and has been wholly rejected. "[W]hile the specification may help illuminate the true focus of a claim, when analyzing patent eligibility, reliance on the

specification must also yield to the claim language in identifying that focus." *Chamberlain Grp., Inc. v. Techtronic Indus. Co.*, 935 F.3d 1341, 1346 (Fed. Cir. 2019). Thus, "details from the specification cannot save a claim directed to an abstract idea that recites generic computer parts." *Synopsys, Inc. v. Mentor Graphics Corp.*, 839 F.3d 1138, 1149 (Fed. Cir. 2016) (citing *Accenture Global Servs., GmbH v. Guidewire Software, Inc.*, 728 F.3d 1336, 1345 (Fed. Cir. 2013).[1]

Second, Quartz misunderstands the role that analogies play in illustrating that a claim is directed to an abstract idea such as a longstanding human practice or steps that may be performed on paper or in the mind. *See Intellectual Ventures I LLC v. Symantec Corp.*, 838 F.3d 1307, 1317–18 (Fed. Cir. 2016) (explaining that analogies are "useful" at step one). Quartz complains that Lyft's analogies fail to capture generic computer components and functionality, specific technological environments, or the elements of dependent claims. These arguments miss the point. Analogies are not meant to track every limitation word-for-word; rather, they are useful to illustrate the abstract idea at the core of the claims by focusing on the underlying idea and not the generic computer components. *Id.* Courts routinely look to such analogies in § 101 analysis. For example, in *Intellectual Ventures I*, the Court found useful "the district court's analogy to a corporate mailroom" and an analogy to "a brick-and-mortar post office" with humans performing similar method steps because those analogies "demonstrate[] that the concept" the claims were directed to "is well-known and abstract," apart from the "generic computer implemented steps." *Id.* The Court found the claimed methods analogous to such longstanding human practices and held the claims unpatentable. *Id.* The fact that the claims recited generic components (e-mail, computer network, database, rule engine, etc.) and their functionalities did not detract from the analogies' usefulness. *Id.*

Third, Quartz incorrectly argues that Lyft should have addressed the full scope of the prior art as part of the § 101 analysis. Federal Circuit precedent, however, is clear that the Court can undertake a § 101 analysis at the pleading stage based solely on the patent itself. "[N]ot every § 101 determination contains genuine disputes over the underlying facts material to the § 101 inquiry."

[1] *See also Yu v. Apple Inc.*, 1 F.4th 1040, 1043 (Fed. Cir. 2021) (noting the focus of the § 101 inquiry is "on the language of the asserted claims themselves") (quoting *TecSec, Inc. v. Adobe Inc.*, 978 F.3d 1278, 1292 (Fed. Cir. 2020) (alterations omitted); *Free Stream Media Corp. v. Alphonso Inc.*, 996 F.3d 1355, 1364–65 (Fed. Cir. 2021) (holding that a claim is directed to an abstract idea where there is nothing in the claims that demonstrate an improvement to computer functionality, even where the specification provides details on how to achieve a result).

Berkheimer v. HP, Inc., 881 F.3d 1360, 1368 (Fed. Cir. 2018) (acknowledging that "[p]atent eligibility has in many cases been resolved on motions to dismiss"); *see also British Telecomms. PLC v. IAC/InterActiveCorp*, No. 18-366-WCB, 2019 U.S. Distx. LEXIS 17269, at *66 (D. Del. Feb. 4, 2019) (collecting cases showing the Federal Circuit has approved of district courts deciding § 101 on motions to dismiss, including in cases post-dating the decision in *Berkheimer*).

Contrary to Quartz's insistence otherwise, "step one of the *Alice* framework does not require an evaluation of the prior art or facts outside of the intrinsic record regarding the state of the art at the time of the invention" and "[n]either *Bilski*, *Alice*, nor this court's precedent endorses such an analysis." *CardioNet, LLC v. InfoBionic, Inc.*, 955 F.3d 1358, 1374 (Fed. Cir. 2020), *cert denied*, 141 S. Ct. 1266 (2021). Similarly, regarding step two, "[w]hether a combination of claim limitations supplies an inventive concept that renders a claim 'significantly more' than an abstract idea to which it is directed is a question of law." *BSG Tech LLC v. Buyseasons, Inc.*, 899 F.3d 1281, 1290 (Fed. Cir. 2018). Although this inquiry ***can*** involve underlying factual determinations regarding what was well-understood, routine, and conventional, it need not when, as here, the intrinsic record admits what was known and conventional and the only alleged inventive concept relies on the abstract idea itself. *See id.* at 1286, 1290–91 (finding irrelevant whether an alleged inventive concept was unconventional when it just restates the abstract idea using generic components in their ordinary manner as confirmed by the specification). Eligibility requires "significantly more." *Id.*

Quartz's citation—without discussion—to *CosmoKey* to suggest otherwise is unfounded. Opp. 10, 16, 23, and 28. In *CosmoKey*, the Federal Circuit found an inventive concept where the ***claims*** were ***specific*** and went ***beyond the abstract idea***—none of which apply here. *See CosmoKey Sols. GmbH & Co. KG v. Duo Sec. LLC*, 15 F. 4th 1091, 1099 (Fed. Cir. 2021). *CosmoKey* is also inapposite because there, unlike here, the intrinsic record did not describe features as conventional. *Id.* at 1095. Thus, *CosmoKey* does not require the showing, as Quartz contends, that components are known and conventional in the prior art. *Id.* Also, this Court has no obligation to look beyond the patent to determine whether it has overcome prior art in unconventional ways for purported advancements not claimed. *Uniloc USA, Inc. v. ADP, LLC*, 772 F. App'x 890, 900 (Fed. Cir. 2019).

In fact, Federal Circuit precedent is consistent with the Supreme Court's guidance not to

"substitute §§ 102, 103, and 112 inquiries for the better-established inquiry under § 101." *Mayo Collaborative Servs. v. Prometheus Lab'ys, Inc.*, 566 U.S. 66, 91 (2012). "Indeed, 'the novelty of any element or steps in a process, or even of the process itself, is of no relevance in determining whether the subject matter of a claim falls within the § 101 categories of possibly patentable subject matter.'" *Intell. Ventures*, 838 F.3d at 1307, 1315 (quoting *Diamond v. Diehr*, 450 U.S. 175, 188–89) (alterations omitted).[2] Quartz appears to acknowledge as much. Opp. 1 (noting that novelty is "wholly apart from whether the invention falls into a category of statutory subject matter"), 3 (noting the "inventive conceptive [sic] inquiry . . . is not an obviousness analysis"). While criticizing Lyft as failing to address prior art—which is unnecessary—Quartz invites the Court to engage in its own novelty and obviousness analysis . *See, e.g.*, Opp. 5–6, 13–14, 16–18, 20, 23, 25–28. The Court should reject Quartz's invitation to do so. *See CardioNet*, 955 F.3d at 1373 ("[W]e reserve for §§102 and 103 purposes our comparison of the prior art and the claims to determine if the claims are, in fact, an improvement over the prior art.").

III. THE PATENTS ARE INVALID UNDER § 101

A. The '443 Patent Claims Patent-Ineligible Subject Matter

The parties agree on what these claims are directed to. Quartz characterizes the '443 Patent as directed to a "method for automatically determining when multiple users of cell phones are in the same region, providing them with a common meeting point, and notifying them accordingly." Opp. 5. Other than the addition of unclaimed limitations (e.g., "automatically" and "cell phones"), that is nearly identical to the abstract idea proposed by Lyft: notifying someone they are in the same area as someone else and determining a common meeting point. Mot. 3. These functional, result-oriented claims contain no inventive concept that is significantly more than that idea.

1. The Claims Are Directed to an Abstract Idea

The '443 Patent claims are as abstract as they come. Rather than focus on the claim language, as required for a § 101 analysis, Quartz complains about Lyft's analogies and argues, without explanation, that the claims recite improved "functionality of cell phones." Opp. 5. In

[2] *See also Affinity Labs of Tex., LLC v. DIRECT TV, .LLC*, 838 F.3d 1253, 1263 n. 3 (Fed. Cir. 2016) ("The eligibility finding does not turn on [] novelty . . . ."); *Two-Way Media Ltd. v. Comcast Cable Commc'ns, LLC*, 874 F.3d 1329, 1337 (Fed. Cir. 2017) ("Eligibility and novelty are separate inquiries.")

doing so, Quartz commits a fundamental error of § 101 analysis by focusing on the patent specification and alleged "benefits" of the purported invention as opposed to what is ***claimed***.

Throughout its opposition, Quartz relies on a number of unclaimed limitations purportedly from the specification. Specifically, Quartz includes the following limitations in its discussion of the claims: performing steps "automatically" (Opp. 5); allowing users to have "multiple group memberships" (Opp. 6); analyzing rate and direction of travel to determine whether a user will enter a region (Opp. 6); determining whether a user is "out of view" of another user (Opp. 7); determining location on an "ongoing basis" (Opp. 7–8); and determining that a device "has moved into a region near [a] first device" (Opp. 11). But none of these features are ***claimed*** and, as such, they have no place in the § 101 inquiry. *Synopsys, Inc.*, 839 F.3d at 1149 ("Complex details from the specification cannot save a claim directed to an abstract idea that recites generic computer parts.")

The claims recite no limitations on how location data is collected. It does not have to be done "automatically," on an "on-going basis," or by use of "GPS-enabled" phones, as Quartz appears to contend through improper reliance on the specification. Opp. 5–7. Location can be obtained by any means in these entirely functional claims—including calling someone and asking where they are or just observing people move around. The location information is not even required to come *from* the "portable communication device." In fact, the only limitation that requires the use of the claimed communication devices is notifying the users "on" each device. And the specification states that "radio frequency signals" can be used for that. '443 Patent at 5:53-56. In any event, Quartz admits that "using GPS to locate a portable communication device was known." Opp. 10. Even assuming GPS-enabled devices were required to determine locations and notify people, those are simply the ordinary functions of such devices. With location data in hand, the remainder of the claims could be performed with a pen and paper map. Indeed, humans have determined each other's locations, that they were near each other, and a place to meet up for a long time, and they have been doing so using portable radios since at least World War II. Mot. 5–6.

Quartz, relying on unclaimed limitations, argues that Lyft's analogies are inapt. Quartz argues—without support—that Lyft's World War II analogy is inaccurate because the claims require locations to be determined on an ongoing basis. Opp. 7–8. That is not ***claimed***. But even if it were,

the analogy still holds as the commander directing the groups of soldiers could, and most likely would, receive updates on the soldiers' positions as they push forward to take the hill. In response to Lyft's mall meet-up analogy, Quartz argues that the first user must be "omniscient" in order to know when she and a friend are in the same region. Quartz ignores that this could be done by a third person watching the first two. And, again, Quartz's distinction relies entirely on unclaimed requirements. Opp. 7. Lyft's analogies accurately track the ***claims*** and properly serve to illustrate the longstanding practices and mental steps at their core.

Quartz's argument that the '443 Patent claims are not abstract because they are directed at a "specific technique" for "improved functionality" is divorced from the claim language. Quartz points to nothing in the ***claims*** that demonstrate a "specific technique." That is unsurprising because the claims do not disclose ***how*** to perform any of the claimed functions. *See* Mot. 6–8. They are purely functional, which "underscores the breadth and abstract nature of the idea embodied in the claims." *Affinity Labs*, 838 F.3d at 1259. Unable to point to any specific claim language, Quartz argues that the Court should focus on the '443 Patent's purported innovations described in the specification. Opp. 8–9. As discussed above, however, this attempt to conflate the § 101 analysis with § 102 novelty analysis has been squarely rejected. *Intell. Ventures I LLC*, 838 F.3d at 1315 (novelty is of "no relevance in determining whether the subject matter of a claim falls within the § 101 categories of possibly patentable subject matter")

2. The Claims Lack an Inventive Concept

Quartz argues that Lyft fails to show the abstract idea of the '443 Patent lacks an inventive concept because Lyft has not shown the abstract idea was "conventional" or "known." Opp. 9–11. Lyft need not do so. "[A] claim for a *new* abstract idea is still an abstract idea." *SAP America, Inc. v. InvestPic, LLC*, 898 F.3d 1161, 1163 (Fed. Cir. 2018) (quoting *Synopsys, Inc*, 839 F.3d at 1151). That is true "no matter how groundbreaking the advance." *Id.* at 1170. And here, as illustrated by Lyft's analogies, the abstract idea is not even new. Further, the specification states that the claimed functionality could be implemented by well-understood and conventional components such as GPS and mobile phones. '443 Patent at 3:52-64; Opp. 5.

Quartz misunderstands what a patent-eligible technological improvement is. Using portable

communication device, e.g., a known GPS-enabled phone, to perform its ordinary functions of determining locations and notifying people does not "improve the functioning of the [device] itself" any more than using a generic computer to perform "intermediated settlement"—even if the method had never been performed on a computer before. *Alice*, 573 U.S. 225–26.

The claims are extremely broad. Quartz touts alleged improvements to cell phones and GPS at the time of the '443 Patent, despite that the claims do not recite cell phones or GPS. In fact, the claims do not require the use of ***any specific technology*** for implementing the abstract idea. And the ordered combination "simply recite[s] the concept" of notifying someone they are in the same area as someone else and determining a common meeting point. *Alice*, 573 U.S. at 225. Quartz cannot assert the abstract idea as the inventive concept. *See BSG Tech LLC*, 899 F.3d at 1290.

Furthermore, Quartz admits that "the underlying rationale behind the eligibility inquiry" is one of preemption. Opp. 1. And the '443 Patent claims raise that very concern. The claims are functional, result-oriented, and encompass nearly all ways of determining locations of devices of two people, determining a common meeting point, and notifying the users. The claims are not even limited to a particular technical environment or a particular field, which further illustrates the preemption concern and abstract nature of these claims. There is no inventive concept.

3. Claim 1 Is Representative

Quartz argues that claim 1 is not representative because claim 3 recites the additional requirement of "determining whether the first user has permission to locate the second user." In support, Quartz suggests that this limitation is incompatible with Lyft's proposed analogies. Opp. at 8. First, claim 3 recites no details regarding ***how*** permission is determined, and this entirely functional limitation neither departs from the abstract idea at the heart of claims nor provides an inventive concept. Second, in Lyft's analogy, the commander unquestionably has permission and the radio operator (like anyone) gives permission simply by responding, never mind the prevalent use of covert authentication codes at the time. In any event, the claim adds nothing more than the idea of determining permission, which is itself abstract and cannot provide an inventive concept. *See, e.g.*, *Prism Techs. LLC v. T-Mobile USA, Inc.*, 696 F. App'x 1014, 1017 (Fed. Cir. 2017) (holding claims directed to "providing restricted access to resources" abstract and ineligible).

B. The '871 Patent Claims Patent-Ineligible Subject Matter

The '871 Patent claims are directed to nothing more than the abstract idea of remotely determining defective operational conditions in an automobile by collecting data, wirelessly transmitting it, analyzing it remotely, and sending it back. Quartz's argument that the '871 Patent claims improvements is insufficient to convert its claims into patent-eligible subject matter.

1. The Claims Are Directed to an Abstract Idea

Quartz's characterization of the claims is consistent with Lyft's abstract idea. In particular, Quartz asserts that the '871 Patent claims are "directed to improving the functioning of the automotive system by facilitating the detection and correction of defective conditions beyond what pre-existing simple on-board diagnostics previously accomplished." Opp. 13. In other words, the claims accomplish monitoring and correcting defective operational conditions via continuous wireless transmission. Quartz makes four arguments to try to salvage the claims, but each fails.

First, because the '871 Patent claims fail to explain *how* to achieve the claimed results, Quartz points to the specification to fill in the details. Opp. 15–16. But the claims themselves do not include these limitations, and—as discussed—the focus of the § 101 inquiry is on the claims themselves and the specification cannot save overly broad claim language. *See* Section II, *supra*, at 2–4. Further, the details Quartz relies on—such as those described in Figures 3 and 4 of the '871 Patent—merely provide instructions on how to carry out the claimed abstract idea on generic devices. These steps are neither claimed nor add anything to the § 101 analysis. *See Intel. Ventures I LLC v. Capital One Bank (USA)*, 792 F.3d 1363, 1370–71 (Fed. Cir. 2015) ("Steps that do nothing more than spell out what it means to 'apply it on a computer' cannot confer patent-eligibility.").

Second, Quartz draws meaningless distinctions to try to distinguish the steps of claim 10 from other claims that courts have found abstract. For example, Quartz suggests that the '871 Patent is unlike the ineligible patent in *Chamberlain* because the court there held that the only improvement over the prior art was that "status information was communicated wirelessly rather than over a conventional hard-wired connection." Opp. 15 (citing *Chamberlain Grp., Inc.*, 935 F.3d at 1346). But Quartz does not explain how the patent in *Chamberlain* is any different from the '871 Patent: *Chamberlain* clarified that wireless transmission (*i.e.*, one purported advance in the '871 Patent), is

nothing more than an abstract idea. *See Chamberlain Grp., Inc.*, 935 F.3d at 1346–47. Nothing is special about the wireless transmission claimed here, which uses conventional components and means. *See* '871 Patent at 2:36–37 ("[T]he wireless transmission system used for the present invention may conveniently be wireless cellular telephonic systems."); *see also id.* at 3:59–63.

Quartz also argues that *Electric Power* and *Uniloc* do not stand for a "broad rule that real-time data transmission is also an abstract idea" because the cases "must be read within the context of the facts it was decided upon." Opp. 15. In both cases, the Federal Circuit held the challenged claims, involving real-time data transmission, ineligible because they were directed to abstract ideas and lacked an inventive concept. *See Elec. Power Grp., LLC v. Alstom S.A.*, 830 F.3d 1351(Fed. Cir. 2016); *Uniloc USA*, 772 F. App'x 890 at 902. Quartz's only attempt at distinguishing the '871 Patent claims is to point out that the prior art previously had "no real-time remote diagnostic station support at all" and the patent therefore "applies wireless technology to accomplish something never done before." Opp. at 15. This notion asserts the routinely rejected argument that applying an abstract idea on a computer transforms it into a patent-eligible invention. Where "the focus of the claims is not on such an improvement in computers as tools, but on certain independently abstract ideas that use computers as tools," the claims are directed to an abstract idea. *Elec. Power*, 830 F.3d at 1354; *SAP America, Inc.*, 898 F.3d at 1163 ("[A] new abstract idea is still an abstract idea.")

Third, Quartz again impermissibly blurs the line between § 101 eligibility and § 102 novelty by generally arguing that "fact issues remain regarding the claimed advance over the prior art." Opp. 16. Quartz argues that "Lyft fails to present any evidence of the state of the prior art." *Id.* at 15. But Lyft is not required to present evidence regarding the state of the prior art—nor is the Court required to consider it—to determine whether the '871 Patent claims an abstract idea. *See CardioNet*, 955 F.3d at 1374. Further, the '871 Patent itself makes clear what is "conventional" and part of the prior art. For instance, the specification states that everything about the patent is "conventional" except the wireless transmission of real-time data and providing corrective and informative data back to the automobile. *See* '871 Patent, 4:35–52.

Fourth, despite arguing that the factual record is undeveloped, Quartz also argues that the claims are patent-eligible because they are an improvement on the prior art. Opp. 13. Specifically,

Quartz argues that the '871 Patent improves diagnostics efficiency through remote and wireless diagnostics and correction. Opp. at 15. But adding efficiency does not make an idea non-abstract. *See Secured Mail Sols. LLC v. Universal Wilde, Inc.*, 873 F.3d 905, 910 (Fed. Cir. 2017) ("The fact that an identifier can be used to make a process more efficient, however, does not necessarily render an abstract idea less abstract."); *see also PersonalWeb Techs. LLC v. Google LLC*, 8 F.4th 1310, 1318 (Fed. Cir. 2021). Here, the purported invention gains efficiency only through continuous wireless transmission, or automation, rather than any improvement in computers as tools. The steps listed in the '871 Patent method claims simply use a generic computer as a tool to implement what has otherwise been done by humans, *e.g.*, a teenager calling his dad about car problems and the dad walking his son through fixing the car problem based on what is conveyed to him.

2. The Claims Lack an Inventive Concept

The '871 Patent claims also lack an inventive concept. Although Quartz asserts that the patent incorporates a specific technical improvement "rooted in computer technology," the technical improvement boils down to the combination of several generic remote elements (*e.g.*, a diagnostic station) used in their ordinary manner. Opp. 13, 16. Rather than identifying any particular inventive concept, Quartz argues only that the "inventors were able to achieve a technical solution—more sophisticated and efficient diagnostic capabilities than previously disclosed by the art . . . and an improvement in the functioning of the automobile." Opp. 16. First, limiting the scope of the claims to automobiles does not transform it into a patent-eligible idea. *Elec. Power*, 830 F.3d at 1354–55 ("Limiting the claims to [a] particular technological environment . . . is, without more, insufficient to transform them into patent-eligible applications of the abstract idea . . . ."). Second, Quartz's arguments on an inventive concept again confuse § 101 eligibility requirements with § 102 novelty. Applying an abstract idea on a computer for the first time may be novel, but it is neither inventive nor patentable without "significantly more." *See Alice*, 573 U.S. at 221–26.

Further, the '871 Patent itself makes clear that the abstract idea is executed by generic and conventional components. Citing *CosmoKey*, Quartz suggests that this Court cannot make a finding on the ordered combination based on the current record. Opp. 16. *CosmoKey*, however, does not establish a rule that Lyft must show that the ordered combination was conventional. *See* Section II,

supra, at 2–4. Here—where the patent holder points to the abstract idea itself as the inventive concept and the patent's specification makes clear that the invention relies on conventional components—Lyft does not need to. *Id.* The combination of several abstract ideas does not transform a claim into a non-abstract idea. *See PersonalWeb Techs.*, 8 F.4th at 1316–18; *Elec. Power*, 830 F.3d at 1354.

3. Claim 10 Is Representative

Claim 10 is representative of asserted claims 1–8 and 10–17. Quartz argues otherwise without providing any support. In fact, Quartz admits that the system claims (1–8) are not materially different from the method claims (10–17). Opp. 14. As for the claims depending from claim 10, Quartz recites the limitations of those dependent claims but fails to explain how those limitations add anything more than additional abstract ideas. Quartz suggests that Lyft "mischaracterizes [claim 10], as well as the specification, which describe a system for 'monitoring and correcting' operational conditions and recite limitations beyond mere wireless data transmission." Opp. 15–16. But as Lyft noted in its motion, claim 11 recites the step of "correcting said defective operational conditions," and correcting or controlling operational conditions is itself an abstract idea. '871 Patent, at cl. 11; Mot. 10. Each of these dependent claims fail to add anything more than additional abstract ideas or functional language claiming the results. *See* Mot. 14.

C. The '215 Patent Claims Patent-Ineligible Subject Matter

The '215 Patent claims are directed to an abstract idea and lack an inventive concept. Quartz spends pages discussing the alleged problems being solved and other details in specification but fails to meaningfully engage the broad claim language. The ***claims*** recite high-level steps written in entirely functional language and fail to recite ***how*** any of the Quartz's alleged improvements are implemented. The claims are thus ineligible for patent protection.

1. The Claims Are Directed to an Abstract Idea

The parties largely agree on the idea to which these claims are directed. Quartz states that the inventors sought to "provid[e] methods that improve response time to events associated with managed IT devices and ensure that someone qualified and available will respond." Opp. 18. Lyft similarly characterized the abstract idea of these claims as: managing IT devices by assigning

responsibility for problems to someone qualified and available to respond. The key difference is that Quartz attempts to find eligibility by identifying an end goal—improving response time. But this purported limitation is not recited in the claims and the claims do not explain ***how*** that goal is accomplished. These claims are thus directed at an abstract idea. *See, e.g.*, *Two-Way Media Ltd.*, 874 F.3d at 1337 (claim "using result-based functional language" directed to an abstract idea because it did "not sufficiently describe how to achieve these results in a non-abstract way"). Quartz raises two arguments to try to avoid this result—each of which fail.

First, Quartz again improperly relies on details and alleged improvements described in the specification that are not recited in the claims. *See* Opp. 17–19. Quartz discusses problems in the prior art that the claims allegedly solve, but the claims stop short of reciting anything more than the abstract idea of solving those problems. For example, Quartz argues that the admittedly known and "conventional" IT management systems that used email, rather than instant messaging, could experience "significant delay," may not notify the right person, did not "detect whether the administrator is available" or "identify other available administrators who can immediately respond to the event," and "there was no guaranteed real-time feedback." Opp. 17–18. Quartz posits that the inventors had the idea to use other conventional technologies, such as instant messaging programs with presence detection, to automatically detect technician availability and to facilitate real-time communications. But the applicant simply claimed the functions of "receiving" information, "selecting" a candidate, and "assigning responsibility" without any details regarding ***how*** other than being automated on a computer. Claim 5 does not even require instant messaging or any kind of real-time communication that Quartz touts as a claimed improvement.[3] *Id.* As Quartz admits, the claims are broad and "not limited to using instant messaging to improve response time." *Id.* "The § 101 inquiry must focus on the language of the Asserted Claims themselves." *Synopsys, Inc.*, 839 F.3d at 1149 (citing *Accenture*, 728 F.3d at 1345).[4] These "details from the specification

[3] The only claim that recited "real time" communication was claim 2, which Quartz disclaimed. Although Quartz argues that "there are numerous reasons" it may have disclaimed Claims 1, 2 and 4 that might not relate to validity or eligibility, it fails to provide any such reason. Opp. at 23.

[4] Quartz attempts to cast *Accenture* as an outdated "pre-*Alice*" opinion to rebut Lyft's "seemingly fitting soundbite from *Accenture*" that the '215 Patent is "a 'do it on a computer' patent." Opp. at 21-22. First, there are 31 Federal Circuit opinions that cite *Accenture*, and 29 of those issued after

cannot save a claim directed to an abstract idea that recites generic computer parts." *Id.*

Although Quartz contends that the claims of the '215 Patent are broad enough to cover an embodiment where response times to IT problems are improved, the claims do not recite how to achieve any such improvement. The claims attempt to broadly preempt managing an IT device by assigning responsibility for a problem to someone qualified and available to respond, whether or not that person actually resolves the problem or whether there is any improvement in response time. Neither of those are required by the ***claims***. Further, the claims do not explain ***how*** alerts are received, ***how*** availability information is received (only recited in claim 5), ***how*** a qualified and available candidate is selected, or ***how*** the responsibility is assigned. It is irrelevant that the "specification provides further details for implementing" aspects of the claims, "such as assigning responsibility to the candidate nearest the device issuing the alert or prioritizing assignments of varying urgency among available candidates." Opp. 19. Those details are not ***claimed***—indeed, the claims purport to cover *any* way of assigning responsibility. Because they recite "functions in general terms, without limiting them to technical means for performing the functions," they are "so result-focused, so functional, as to effectively cover any" implementation of the abstract idea. *Elec. Power*, 830 F.3d at 1350, 1353, 1356.

Quartz also argues that its allegations of infringement against Lyft's "sophisticated, tangible system" support finding eligibility because "[t]here is nothing abstract about the accused Lyft platform." Opp. 21. Not only is that unsupported, it is illogical. The fact that Quartz reads these claims so broadly as to encompass "the transportation services that the platform supports" (*id.*) confirms the boundless and abstract nature of these claims, flatly contradicting Quartz's argument that they recite some specific improvement in IT management systems. According to Quartz, the specification provides no reason the claims are limited to "responding to IT problems" (Opp. 21), despite that being the entire focus of the patent. '215 Patent at Abstract.

Second, Quartz wrongly contends that Lyft oversimplifies the claimed abstract idea through its analogies. Opp. 20. Lyft's analogies illustrate the longstanding practice at the heart of these

Alice. None have called into question *Accenture*, which is still good law. Second, the "seemingly fitting soundbite" that Quartz complains of is not from *Accenture*. As Lyft properly cited in its Motion, it is from *Univ. of Fla. Research Found., Inc. v. Gen. Elec. Co.*, 916 F.3d 1363, 1367 (Fed. Cir. 2019), a case that Quartz does not cite or rebut. Mot. at 20.

claims and demonstrate how it could be performed in the human mind or with pen and paper. As explained in Section II, above, Quartz fundamentally misunderstands why and how such analogies are useful. Courts have already held that supplying generic and conventional components and functionality are insufficient to save a claim from abstraction and thus need not be included in an analogy. *See* Section II, *supra*, at 2–4.

Although Lyft's analogies do not include "managed IT devices," IT devices (and specifically, "managed IT devices") were well-known and conventional at the time the '215 Patent was filed, as confirmed by the specification and admitted by Quartz. Mot. 21–22; *see, e.g.*, '215 Patent at 1:6-10, 1:36–59 4:57–65, 5:51–6:6, 8:26–36; Opp. 17 (admitting a "conventional approach" in "conventional systems" "involved sending an email to an administrator when a problem arose"); *see also id*. at 20 (describing "conventional systems" that included a "managed IT device"). Thus, "managing IT devices" is nothing more than a generic technological environment, and "that does not make the claims any less abstract." *TLI*, 823 F.3d at 613. In fact, Quartz argues that the claims apply to any "computer environment in a particular industry." Opp. 22.

Lyft's analogies appropriately track the remaining aspects of the claims, namely, assigning responsibility for problems to someone qualified and available to respond. Quartz does not substantively address Lyft's ship-captain analogy, which, excepting the admittedly known and conventional computer components and functionality, tracks every step of every asserted claim. Mot. 19 (mapping analogy to claim steps). Rather, Quartz simply says that this analogy is "unpersuasive" and "not useful," without any explanation as to why. Opp. 20. Quartz then criticizes Lyft's dishwasher analogy because the blinking light on the dishwasher is not an "alert." *Id.* Even if, in addition to pen and paper, a telephone was needed, the use a telephone or other conventional communication technology does not change the analysis. *Id.* (arguing the person "must conduct research and phone conversations to gather this information"). It is this type of abstract manual process that these claims seek to automate using a generic computer.

Notably, in its criticism, Quartz refuses to address the claim language. Claim 5 simply says "receiving availability information," with no limitations on ***how***, and claim 14 simply says "determining if the candidate is available," again with no limitations on ***how***. Claim 5 does not even

require using the received information, as that is the sole limitation of dependent claim 6. Aside from generic computer components and functionality, the dishwasher analogy tracks the process of the claims by using the phone book to select certified technicians, calling them to explain the problem and to see if they are available, choosing one, and making and confirming an appointment, and if the appointment is not confirmed within a reasonable time, finding someone else that is available. This illustrates that, once the generic computer components and functionality are set aside, the remaining limitations of the claims as a whole "simply recite the concept" of assigning responsibility for problems to someone qualified and available to respond. *Alice*, 573 U.S. at 225; *Bancorp Servs., L.L.C. v. Sun Life Assur. Co. of Canada (U.S.)*, 687 F.3d 1266, 1279 (Fed. Cir. 2012) ("When the insignificant computer-based limitations are set aside from those claims that contain such limitations, the question under § 101 reduces to an analysis of what additional features remain in the claims.") (citing *Mayo*, 566 U.S. at 78).

2. The Claims Lack an Inventive Concept

Quartz again fails to identify any inventive concept. Its reliance on four Federal Circuit opinions to argue that the '215 Patent is a patent-eligible improvement—*TecSec*, *Ancora*, *Packet Intelligence*, and *Data Engine*—is misplaced. *See* Opp. 20–21. Unlike the claims in those cases, the claims here fail to recite "a ***specific*** technique … to solve a ***specific*** computer problem." *Ancora Techs., Inc. v. HTC Am., Inc.*, 908 F.3d 1343, 1348 (Fed. Cir. 2018), *as amended* (Nov. 20, 2018); *see also Packet Intelligence LLC v. NetScout Sys., Inc.*, 965 F.3d 1299, 1309 (Fed. Cir. 2020). (claiming "a ***specific*** improvement in computer technology); *Data Engine Techs. LLC v. Google LLC*, 906 F.3d 999, 1008 (Fed. Cir. 2018) (claims "directed to a ***specific solution*** to then-existing technological problems ***in*** computers.") (all emphases added).

In *TecSec*, the Court explained that the "directed to" inquiry looks to "what the patent asserts to be the focus of the ***claimed*** advance over the prior art." 978 F.3d at 1292 (emphasis added). But here, the ***claims*** fail to capture any of Quartz's alleged advances. As *TecSec* explains, "[i]n cases involving software innovations, this inquiry often turns on whether the claims focus on specific asserted improvements in computer capabilities or instead on a process or system that qualifies an abstract idea for which computers are invoked merely as a tool." *Id.* at 1293. The claims here fall

into the latter category. They are devoid of any *specifics* as to ***how*** to implement the claimed steps. They do not recite any improvement to the functioning of a managed IT device or computer capability. They do not require that the person assigned actually resolve whatever problem the device is experiencing, and they certainly do not require that that be done within some improved amount of time. They do not require the identified person to "immediately respond" or guarantee "real-time feedback," the other improvements that Quartz asserts (Opp. at 17–18). Quartz appears to argue that these method claims recite a specific, patent-eligible implementation because they contain discrete steps. That is true for every method claim that has been found ineligible under § 101, and that circular logic cannot save these claims. To the extent the claims capture any of the alleged improvements, they simply fail to do so in a non-abstract way. Rather, the improvements, if any, stem from automating the process using conventional computer technologies. That is insufficient. *Credit Acceptance*, 859 F.3d at 1055.

3. Claim 5 Is Representative

Claim 5 is representative because all the claims are "substantially similar and linked to the same abstract idea." *Content Extraction*, 776 F.3d at 1348 (internal citation omitted). Claim 6 simply recites using the availability information in the process, and claim 7 simply recites determining a plurality of qualified candidates and choosing one. Notably, Quartz does not rely on either of those claims to provide an inventive concept, which they do not.

Quartz's repeated focus on claims 8, 15, and 16 is misplaced. Opp. 18–19 (incorrectly arguing these claims "add further meaningful limitations"), 23 (asserting these claims provide an inventive concept). Claim 8 does not require the method "***chose*** a candidate closest to a managed device" as Quartz alleges. *Id.* at 23 (emphasis added). Claim 8 merely recites "determining" which candidate is "located closest to the managed device." That is abstract. Not only does the claim fail to provide any details regarding ***how***, the claims do not actually require ***selecting*** the person who is closest, just that the determination is made. In any event, Quartz cannot argue credibly that selecting the person closest to a problem, without more, is somehow inventive. Similarly, setting aside the conventional computer functionality, the limitations of claim 15 add nothing inventive and merely require identifying a second qualified candidate and determining if they are available. It does not

explain ***how*** or even require sending the second candidate an instant message, assigning responsibility, or receiving a reply. Claim 16 recites the wholly conventional functionality of well-known and commercially available instant messaging systems, which adds nothing inventive. *See Bancorp Servs., L.L.C*, 687 F.3d at 1279 ("When the insignificant computer-based limitations are set aside from those claims that contain such limitations, the question under § 101 reduces to an analysis of what additional features remain in the claims.") (citing *Mayo*, 566 U.S. at 78). Where the claims merely recite an "application of an abstract idea using conventional and well-understood techniques," there is no inventive concept as a matter of law. *BSG Tech LLC*, 899 F.3d at 1290.

D. The '275 Patent Claims Patent-Ineligible Subject Matter

The '275 Patent claims are also directed to an abstract idea and lack an inventive concept. Quartz spends almost two full pages of its opposition describing the "proper context" of the '275 Patent for purposes of the Court's 101 analysis. Opp. 24–25. But Quartz's characterization of the '275 Patent—which is similar to Lyft's—does not fundamentally change the fact that the '275 Patent's claims are: (1) directed at collecting, analyzing, and transmitting data; (2) functional in nature; and (3) directed at a longstanding human practice. Mot. 23–29.[5] For instance, the parties agree that "[t]he '275 Patent concerns adjusting vehicle timing in a transportation network" to reduce passenger wait time. Opp. 24; *see also* Mot. 1, 23. But Quartz argues (without explanation) that Lyft's analysis is flawed on the basis that Lyft fails to discuss the reduction of the *cumulative* wait time of the passengers. Opp. 24. Quartz is wrong. Lyft discusses that aspect of the purported invention throughout its analysis, including in its analogy. Mot. 23–29.

Quartz then argues the Court should find that the '275 Patent is not directed at an abstract idea for two primary reasons: (1) the patentee overcame an initial rejection from the examiner on 101 grounds; (2) the additional limitation that allegedly made the claims patent eligible was an advance over the prior art. Opp. 24–28. Quartz further argues that the '275 Patent contains "inventive concepts" because it recites the combination of conventional elements in a way that would have been unknown at the time. *Id*. 28–29. Each of these arguments fails.

1. The Claims Are Directed to an Abstract Idea

[5] The same is true for the '275 Patent's dependent claims. Quartz recharacterizes them in its brief, but it fails to explain how its characterizations change the analysis. Opp. 25, 29. They do not.

Quartz argues that the '275 Patent is not directed at an abstract idea because the examiner allowed Claim 1 after the patentee added language that the processing in the claim included "processing to determine an adapted timetable for providing a reduced cumulative wait time." *See* Opp. 25–28. Quartz acknowledges that the examiner found the remaining elements of the claim abstract and lacking an inventive concept. Opp. 26. But it urges the Court to find this additional "processing includes processing" limitation renders the claim patent-eligible because it is supposedly an advancement over the prior art. *Id*. The Court should reject the invitation to do so.

First, and as a threshold matter, Quartz's notion that overcoming a § 101 rejection makes a patent unassailable is wrong. Opp. at 27. "The initial determinations by the PTO in determining to grant the application are entitled to no deference." *Novo Nordisk A/S v. Caraco Pharm. Labs., Ltd.*, 719 F.3d 1346, 1357 (Fed. Cir. 2013); *see also Merad, Inc. v. MRI Devices Corp.*, 401 F.3d 1313, 1322 (Fed. Cir. 2005) ("[A] court is not bound by the PTO's actions and must make its own independent determination of patent validity.") Another patent holder advanced a similar argument in this District, which the Court rejected and found ineligible claims that had previously overcome an examiner's rejection under § 101. *Fitbit Inc. v. AliphCom*, No. 16-CV-0118-BLF, 2017 WL 819235, at *2, *15–18 (N.D. Cal. Mar. 2, 2017). There, the examiner withdrew the § 101 rejection after the patentee amended the claims to add that a notification be displayed at a "specified date and time" or within a "time window." *Id.* at *2. The Court still found that the claims were directed to an abstract idea, the additional limitations supplied no inventive concept, and that the claims were thus ineligible. *Id*. at *15-18. The Court held that it "need not defer to an examiner's conclusions on patent eligibility, on underlying observations regarding the state of the art." *Id*. at *18.

Second, Quartz's "processing includes processing" limitation does not fundamentally alter the analysis that applies to the remaining elements, which the examiner did find directed to ineligible subject matter. Quartz fails to explain how the claim is anything more than analyzing collected data ("processing") and outputting the results of the analysis ("providing a reduced cumulative wait time"), (Opp. 25–28), which the Federal Circuit has repeatedly found abstract, (Mot. 25–26). Without more, Quartz simply contends that "[t]his oversimplifies the '275 claims," but its supposedly more complicated formulation—"processing data to optimize vehicle and passenger

flow in the transportation network, determining whether a momentary wait time would benefit passengers, and adjusting the timetable accordingly" —adds nothing more. Opp. 26. It is the same "providing . . . [of] an output based on a processing of the passenger information" that the examiner found abstract. *See* '275 Patent at Claim 1. Further, Quartz does not respond to the fact that—even with this limitation—the claims of the '275 Patent are results-focused without specifying ***how*** the claim must be performed. *See* Opp. 25–28. The claims broadly cover any implementation of the abstract idea, which renders them invalid. *See Elec. Power Grp.*, 830 F.3d at 1356.

Third, the Court should reject Quartz's argument that the additional "processing" limitation renders the claims of the patent non-abstract "because the amended claim discloses an advance over the prior art." Opp. 26. The Federal Circuit has developed many approaches to determine whether an idea is abstract for purposes of § 101, but whether the purported invention is an advancement over prior art (*e.g.*, novel) is not one of them. *See CardioNet*, 955 F.3d at 1374. The Federal Circuit has held that step one includes assessing "the focus of the claimed advance over the prior art," but that is just to define the purported invention and not to evaluate whether that purported invention is, in fact, abstract. *See C.R. Bard Inc. v. AngioDynamics, Inc.*, 979 F.3d 1372, 1382–83 (Fed. Cir. 2020). Quartz's contention that an alleged advance over the prior art should end the inquiry collapses the analysis of a patent's validity under §§ 102 and 103 with 101, which the Supreme Court has rebuked. *Mayo*, 566 U.S. at 91.

Finally, Quartz's peripheral arguments—that the '275 Patent Claims do not fit into an established category of abstract ideas and are not a longstanding human practice—fare no better. Opp. 27–28. Quartz does nothing to substantiate these assertions. *Id.* It is unclear how "determine[ing] an "adaptable timetable for providing a reduced cumulative wait time" in a transportation network is not a "method of organizing human activity," which Quartz acknowledges is one of the categories the Supreme Court has found abstract (*Alice*). *See* Opp. 28. Quartz also argues the '275 Patent does not claim a longstanding human practice by attacking Lyft's analogies. It can only do so, though, by improperly arguing that the analogy does not meet limitations that do not actually exist in the claim—such as that the system has to be "automated"—and purposefully misreading the analogies in the narrowest way possible. *See* Opp. 27. Of course, airplane operators

track and process passenger location information for the purpose of adjusting and providing an adapted timetable of departures for multiple vehicles when multiple flights with many passengers connecting to different locations are delayed. Likewise, the collection of passenger location information and the evaluation of the cumulative wait time of multiple passengers would undoubtedly be at play in a Mayflower-type situation. And, notably, Quartz has no response to the fact that any of this processing—whether it was done on the Mayflower or is done by cruise ship and airline operators—could be done with pen and paper. It can, and the '275 Patent itself acknowledges as much. Mot. 28.

2. The Claims Lack an Inventive Concept

Quartz argues that there is insufficient evidence to show that the elements of the asserted claims of the '275 Patent were conventional and well-known and that—even if they were—it is not clear that the combination of them was too. Opp. 28–29. In doing so, Quartz merely relies on the abstract idea itself to establish an inventive concept. *Id*. The Federal Circuit has rejected this approach and the need to engage in factual questions of whether any such alleged inventive concept was non-routine or unconventional. *BSG Tech LLC*, 899 F.3d at 1290–91. Regardless, Quartz does not identify any specific elements of the claims—or combination thereof—that must be performed by unconventional elements and/or conventional elements in an unconventional combination. It in fact cannot do so because—as highlighted by the '275 Patent specification and Lyft's analogies—the claims are both broad and completely silent on how their claimed functions are to be performed. As such, even if they could be performed by unconventional elements in unconventional combinations, they also could be performed by conventional elements in conventional combinations. Quartz does not contend otherwise. The Court should find that there is no inventive concept, and the '275 Patent claims are ineligible for claiming unpatentable subject matter.

IV. CONCLUSION

For the foregoing reasons, Lyft respectfully requests the Court grant its motion.

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Respectfully submitted,

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